

SUPPLEMENTAL AMENDMENT UNDER 37 C.F.R. § 1.111  
USSN: 09/740,975

**AMENDMENTS TO THE SPECIFICATION**

**Please replace the paragraph on page 1, beginning at line 16 with the following new paragraph:**

~~It has been known aA~~ transmission diversity to perform transmission from a plurality (for example, two) of transmission antennas provided in one base station, and to receive transmitted data by a mobile station, such as a portable terminal or the like, is known. In such transmission diversity, since a plurality of paths between the base station and a mobile station are established, communication can be performed even when receiving condition in one path is not good, if receiving condition of another path is good.

**Please replace the paragraph on page 2, beginning at line 12 with the following new paragraph:**

In the shown example, one frame (frame) is consisted of fifteen time slots (hereinafter, merely called as "slot") #0 to #14. Accordingly, since one frame ~~is consisted of an~~ odd number of slots, "-A" and "A" are transmitted from the antenna 2 at the boundary of the frame FB (frame boundary). At portions other than the boundary FB, "A", "A" and "-A", "-A" are transmitted alternately from the antenna 2 as set forth above.

**Please replace the paragraph on page 3, beginning at line 15 with the following new paragraph:**

Here, "a" takes a value of "1" or "-1" according to the following condition. Namely, concerning the data portion indicated by primary CCPCH in Fig. 8, when transmission diversity

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is performed in a method called as-space time block coding based transmit antenna diversity (STTD), "a" is "1" and when STTD transmission diversity is not performed, "a" becomes "-1".

**Please replace the paragraph on page 8, beginning at line 13 with the following new paragraph:**

However, when two symbols are used, if an error is present in a reference oscillation frequency between the base station and the mobile terminal, phase rotation is caused between the symbols. This makes it necessary to require simultaneously perform prediction and correction of phase rotation, which makes the process quite very complicated.

**Please replace the paragraph on page 9, beginning at line 8 with the following new paragraph:**

In first and second symbols in a predetermined number of series of slots with respect to a reception signal, taking a primary CPICH symbol with respect to the first symbol as  $C_{2n,0}$ , a SCH symbol with respect to the first symbol as  $S_{2n,0}$ , and a primary CPICH symbol with respect to the second symbol as  $C_{2n,1}$  ~~and a SCH symbol with respect to the second symbol as  $S_{2n,1}$~~ ;

**Please replace the paragraph on page 9, beginning at line 14 with the following new paragraph:**

Taking a complex conjugate of the primary CPICH symbol  $C_{2n,0}$  as  $C_{2n,0*}$ , a complex conjugate of SCH symbol  $S_{2n,0}$  as  $S_{2n,0*}$ , and a complex conjugate of the primary CPICH symbol  $C_{2n,1}$  as  $C_{2n,1*}$  ~~and a complex conjugate of the SCH symbol  $S_{2n,1}$  as  $S_{2n,1*}$~~ ; and

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**Please replace the paragraph on page 9 (which bridges over to page 10), beginning at line 23 with the following new paragraph:**

Circuits for deriving the complex conjugate  $C_{2n,0}$  of the primary CPICH symbol  $C_{2n,0}$ , a complex conjugate  $S_{2n,0*}$  of SCH symbol  $S_{2n,0}$ , and a complex conjugate  $C_{2n,1*}$  of the primary CPICH symbol  $C_{2n,1}$  ~~and a complex conjugate  $S_{2n,1*}$  of the SCH symbol  $S_{2n,1}$~~

**Please replace the paragraph on page 10 (which bridges over to page 11), beginning at line 19 with the following new paragraph:**

Calculating step for calculating a calculated value of  $C_{2n,0} \times S_{2n,0*} + C_{2n,0*} \times S_{2n,0} + C_{2n,1*} \times C_{2n,1}$ , in first and second symbols in a predetermined number of series of slots with respect to a reception signal, taking a primary CPICH symbol with respect to the first symbol as  $C_{2n,0}$ , a SCH symbol with respect to the first symbol as  $S_{2n,0}$ , and a primary CPICH symbol with respect to the second symbol as  $C_{2n,1}$  ~~and a SCH symbol with respect to the second symbol as  $S_{2n,1}$~~ , and taking a complex conjugate of the primary CPICH symbol  $C_{2n,0}$  as  $C_{2n,0*}$ , a complex conjugate of SCH symbol  $S_{2n,0}$  as  $S_{2n,0*}$ , and a complex conjugate of the primary CPICH symbol  $C_{2n,1}$  as  $C_{2n,1*}$  ~~and a complex conjugate of the SCH symbol  $S_{2n,1}$  as  $S_{2n,1*}$~~ ; and

**Please replace the paragraph on page 11, beginning at line 10 with the following new paragraph:**

Deriving the complex conjugate  $C_{2n,0*}$  of the primary CPICH symbol  $C_{2n,0}$ , a complex conjugate  $S_{2n,0*}$  of SCH symbol  $S_{2n,0}$ , and a complex conjugate  $C_{2n,1}$  of the primary CPICH symbol  $C_{2n,1}$  ~~and a complex conjugate  $S_{2n,1*}$  of the SCH symbol  $S_{2n,1}$~~

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**Please replace the paragraph on page 12, beginning at line 3 with the following new paragraph:**

Calculating step for calculating a calculated value of  $C_{2n,0} \times S_{2n,0*} + C_{2n,0*} \times S_{2n,0} + C_{2n,1} \times S_{2n,1}$ , in first and second symbols in a predetermined number of series of slots with respect to a reception signal, taking a primary CPICH symbol with respect to the first symbol as  $C_{2n,0}$ , a SCH symbol with respect to the first symbol as  $S_{2n,0}$ , and a primary CPICH symbol with respect to the second symbol as  $C_{2n,1}$  ~~and a SCH symbol with respect to the second symbol as  $S_{2n,1}$~~ , and taking a complex conjugate of the primary CPICH symbol  $C_{2n,0}$  as  $C_{2n,0*}$ , a complex conjugate of SCH symbol  $S_{2n,0}$  as  $S_{2n,0*}$ , and a complex conjugate of the primary CPICH symbol  $C_{2n,1}$  as  $C_{2n,1*}$ ~~and a complex conjugate of the SCH symbol  $S_{2n,1}$  as  $S_{2n,1*}$~~ ; and